

AMENDMENTS TO THE SPECIFICATION

Please replace paragraph 0013 with the following amended paragraph:

Figures 3A – ~~[[G]]~~ H show in a cross section, formation of preferred embodiment pads on the surface of a wafer.

Please replace paragraph 0016 with the following amended paragraph:

Figures 3A – ~~[[G]]~~ H show in a cross section, formation of preferred embodiment pads on the surface of a wafer according to the present invention. So, first in step 122 as shown in the cross section 140 of Figure 3A, after forming circuit layers on a wafer 142, e.g., after normal back end of the line (BEOL) processing, seed metal layers 144, 146 are formed on the wafer 142. A 500 – 20,000 angstrom (20,000Å) conductive barrier layer 144, which corresponds to pad layer 112 in Figure 1, is formed on the upper surface 148 of the wafer 142. Preferably, conductive barrier layer 144 is a 2500Å thick layer of a suitable barrier material (TiW, Cr, Ta/TaN, Ti/TiN) or adhesion material (CrCu, Ti or NiV) or a combination thereof. Then, a 500 – 50,000Å thick seed material layer 146 terminating in copper is formed on the barrier/adhesion layer 144. Preferably, the seed material layer 146 is a one micrometer (1µm or 10,000Å) thick copper layer. Seed pads are defined in step 124 by first forming a block out mask 150 on the seed layer 146 as shown in Figure 3B. Preferably, the block out mask 150 is formed using any suitable technique, e.g., forming a photo resist layer and patterning the resist photolithographically. Then, with the developed resist mask 150 on the seed layer 146 reflecting the pad pattern, the exposed portions of the seed layer 146 are removed, e.g., etched to leave copper pads 152 (corresponding to pad layer 114 in Figure 1) on the barrier/adhesion layer 144 as shown in Figure 3C.